

**UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

NANOCO TECHNOLOGIES LTD., Plaintiff, v. SAMSUNG ELECTRONICS CO., LTD., SAMSUNG DISPLAY CO., LTD., and SAMSUNG ELECTRONICS AMERICA, INC. Defendants.	Civil Action No. 2:20-cv-00038-JRG JURY TRIAL DEMANDED
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**DEFENDANTS SAMSUNG ELECTRONICS CO., LTD.’S AND SAMSUNG
ELECTRONICS AMERICA, INC.’S ANSWER AND COUNTERCLAIMS**

Defendants Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively, “Samsung”) hereby submit their Answer to Plaintiff Nanoco Technologies Ltd.’s (“Nanoco” or “Plaintiff”) Complaint. Defendants also hereby submit their Counterclaims to Plaintiff’s Complaint. Samsung denies all allegations in Nanoco’s Complaint unless expressly admitted in the following paragraphs. Any admissions herein are for purposes of this matter only. Samsung also reserves the right to take further positions and raise additional defenses and counterclaims that may become apparent as a result of additional information discovered subsequent to filing the Answer and Counterclaims.

Samsung Advanced Institute of Technology (“SAIT”) and Samsung Electronics Co., Ltd. Visual Display Division (“SEC Visual Display”), and all claims against them, were voluntarily dismissed from this matter pursuant to Rule 41(a)(1)(A)(i) of the Federal Rules of Civil Procedure.

See Dkt. No. 15. Therefore, all allegations in Nanoco's Complaint regarding SAIT and SEC Visual Display entities, including but not limited to all claims against SAIT and SEC Visual Display, do not require an answer.

THE PARTIES

1. Samsung lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 1 of the Complaint and, on that basis, denies them.

2. Samsung admits that what are purported to be copies of U.S. Patent Nos. 7,588,828 ("828 patent"), 7,803,423 ("423 patent"), 7,867,557 ("557 patent"), 8,524,365 ("365 patent"), and 9,680,068 ("068 patent") (collectively, the "Asserted Patents") are attached to the Complaint as Exhibits 1-5, respectively. Samsung lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 2 of the Complaint and, on that basis, denies them.

3. Samsung admits that Samsung Electronics Co., Ltd. ("SEC") is a corporation organized and existing under the laws of the Republic of Korea with a principal place of business at 129 Samsung-ro, Maetan-3dong, Yeongtong-gu Suwon-si, Gyeonggi-do, 16677, Korea.

4. Samsung admits that Samsung Display Co., Ltd. ("SDC") is a company organized and existing under the laws of the Republic of Korea with the principal place of business at 1 Samsung-Ro, Giheung-Gu, Yongin-City, Gyeonggi-Do 17113, Korea. Samsung denies the remaining allegations in paragraph 4 of the Complaint.

5. SEC admits that SAIT conducts research and development, is a research unit of SEC, and has a place of business at 130, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16678, Korea. Samsung denies the remaining allegations of paragraph 5 of the Complaint.

6. SEC admits that SEC Visual Display is a business division of SEC and not a stand-alone entity. Samsung denies the remaining allegations of paragraph 6 of the Complaint.

7. Samsung admits that Samsung Electronics America, Inc. ("SEA") is a wholly owned subsidiary of SEC. Samsung admits that SEA is incorporated under the laws of New York with a

principal place of business at 85 Challenger Road, Ridgefield Park, New Jersey 07660. Samsung admits that SEA has offices at 6625 Excellence Way, Plano, Texas 75023. Samsung denies that SEA has offices or other facilities at 1301 E. Lookout Drive, Richardson, Texas 75082. Samsung admits that SEA is registered to do business in Texas. Samsung denies the remaining allegations in paragraph 7 of the Complaint.

8. Samsung admits that SEA has designated CT Corporation at 1999 Bryan St., Suite 900, Dallas, Texas 75201-3136 as its agent for service of process. Samsung denies the remaining allegations in paragraph 8.

9. Samsung denies the allegations in paragraph 9 of the Complaint.

JURISDICTION AND VENUE

10. Samsung admits that Nanoco purports to set forth an action for patent infringement under the Patent Laws of the United States of America, 35 U.S.C. § 1 *et seq.* Samsung admits that, for the purposes of this action only, this Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

11. SEC and SEA, for purposes of this case only, will not challenge personal jurisdiction in the Eastern District of Texas. Samsung denies committing any acts of infringement at any time. The remaining allegations in paragraph 11 of the Complaint express legal conclusions and thus no response is required. To the extent that a response is required, Samsung denies the remaining allegations in paragraph 11 of the Complaint.

12. Samsung, for purposes of this case only, admits that SEA conducts business in this District. Samsung admits that SEA has offices in the Eastern District of Texas, including at 6625 Excellence Way, Plano, Texas 75023. Samsung denies that SEA has offices or other facilities at 1301 E. Lookout Drive, Richardson, Texas 75082. Samsung denies that SEC conducts business in this District and further denies that SEC has a regular and established place of business in this District. Samsung denies that the accused Samsung products, including Samsung QLED TVs, infringe any of

the Asserted Patents. The remaining allegations in paragraph 12 of the Complaint express legal conclusions and thus no response is required. To the extent that a response is required, Samsung denies the remaining allegations in paragraph 12 of the Complaint.

13. SEC and SEA, for purposes of this case only, will not challenge personal jurisdiction in the Eastern District of Texas. The remaining allegations in paragraph 13 of the Complaint express legal conclusions and thus no response is required. To the extent that a response is required, Samsung denies the remaining allegations in paragraph 13 of the Complaint.

14. SEC will not contest, for purposes of this case only, that venue is proper in this Court for SEC. SAIT and SEC Visual Display, and all claims against them, were voluntarily dismissed from this matter pursuant to Rule 41(a)(1)(A)(i) of the Federal Rules of Civil Procedure (*see* Dkt. No. 15) and thus no response is required to the allegations in paragraph 14 of the Complaint as to SAIT and SEC Visual Display. Samsung denies the remaining allegations in paragraph 14.

15. SEA will not contest, for purposes of this case only, that venue is proper in this Court for SEA. Samsung denies that SEA has at any time committed acts of patent infringement anywhere, including in this District, whether by directly and/or indirectly using, selling, offering to sell, or importing any products or otherwise. Samsung admits that SEA has done and continues to do business in this District. Samsung admits that SEA has offices in the Eastern District of Texas, including at 6625 Excellence Way, Plano, Texas 75023. Samsung denies that SEA has offices or other facilities at 1301 E. Lookout Drive, Richardson, Texas 75082. The remaining allegations in paragraph 15 of the Complaint express legal conclusions and thus no response is required. To the extent that a response is required, Samsung denies the remaining allegations in paragraph 15 of the Complaint.

FACTUAL BACKGROUND

16. Samsung lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 16 of the Complaint and, on that basis, denies them.

17. Samsung lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 17 of the Complaint and, on that basis, denies them.

18. Samsung lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 18 of the Complaint and, on that basis, denies them.

19. Samsung denies the allegations in paragraph 19 of the Complaint.

20. Samsung lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 20 of the Complaint and, on that basis, denies them.

21. Samsung lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 21 of the Complaint and, on that basis, denies them.

22. Samsung lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 22 of the Complaint and, on that basis, denies them.

23. Samsung lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 23 of the Complaint and, on that basis, denies them.

24. Samsung admits that it communicated with Nanoco in or before 2010. Samsung denies the remaining allegations in paragraph 24 of the Complaint.

25. Samsung admits that Nanoco provided Samsung samples of quantum dots. Samsung denies the remaining allegations in paragraph 25 of the Complaint.

26. The allegations in paragraph 26 of the Complaint express legal conclusions and thus no response is required. To the extent that a response is required, Samsung denies the allegations in paragraph 26 of the Complaint.

27. Samsung admits that a January 5, 2015 article cited by Nanoco states that, at the Consumer Electronics Show in 2015, it demonstrated a TV that used quantum dots. Samsung denies the remaining allegations in paragraph 27 of the Complaint.

28. Samsung admits that a September 5, 2017 article cited by Nanoco states that

Samsung launched a QLED TV in 2017 in North America. Samsung admits that a November 30, 2017 article cited by Nanoco states that “cadmium-free quantum dot technology” is “currently utilized in Samsung QLED TVs.” Samsung denies the remaining allegations in paragraph 28 of the Complaint.

29. Samsung admits that a September 5, 2017 article cited by Nanoco states Samsung’s share in North America’s high-end TV market, including QLED TVs, increased in the second quarter of 2017. Samsung denies the remaining allegations in paragraph 29 of the Complaint.

30. Samsung admits that a September 5, 2017 article cited by Nanoco states “Samsung’s QLED TV, which combines great picture quality and lifestyle design, has led the outstanding performance of Samsung premium TV all over the world.” Samsung admits that the article cited by Nanoco also states “THIS IS QLED TV, Part 7: QLED TV – How Samsung Achieved Dominance in the Premium TV Market.” Samsung denies the remaining allegations in paragraph 30 of the Complaint.

31. Samsung admits that the September 5, 2017 article cited by Nanoco, referencing an earlier article, states premium TVs “account[] for 20 percent of sales revenue and 40 percent of profits” for some manufacturers. Samsung admits that the article cited by Nanoco also states premium TVs “have a much larger business impact” in comparison to their percentage of total global TV sales. Samsung denies the remaining allegations in paragraph 31 of the Complaint.

32. Samsung admits that portions of the specifications of the ’828, ’423, ’365, and ’557 patents purport to describe nanoparticles and/or methods of making them. Samsung admits that portions of the specification of the ’068 patent purport to describe “multi-phase polymer films” incorporating quantum dots. Samsung denies the remaining allegations in paragraph 32 of the Complaint.

33. Samsung admits the ’828 patent is entitled “Preparation of Nanoparticle Materials.”

The remaining allegations in paragraph 33 of the Complaint express legal conclusions and thus no response is required. To the extent that a response is required, Samsung denies the remaining allegations in paragraph 33 of the Complaint.

34. Samsung admits the '365 patent is entitled "Preparation of Nanoparticle Materials." The remaining allegations in paragraph 34 of the Complaint express legal conclusions and thus no response is required. To the extent that a response is required, Samsung denies the remaining allegations in paragraph 34 of the Complaint.

35. Samsung admits the '423 patent is entitled "Preparation of Nanoparticle Materials." The remaining allegations in paragraph 35 of the Complaint express legal conclusions and thus no response is required. To the extent that a response is required, Samsung denies the remaining allegations in paragraph 35 of the Complaint.

36. Samsung admits the '557 patent is entitled "Nanoparticles." The remaining allegations in paragraph 36 of the Complaint express legal conclusions and thus no response is required. To the extent that a response is required, Samsung denies the remaining allegations in paragraph 36 of the Complaint.

37. Samsung admits the '068 patent is entitled "Quantum Dot Films Utilizing Multi-Phase Resins." The remaining allegations in paragraph 37 of the Complaint express legal conclusions and thus no response is required. To the extent that a response is required, Samsung denies the remaining allegations in paragraph 37 of the Complaint.

38. Samsung lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 38 of the Complaint and, on that basis, denies them.

39. Samsung lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 39 of the Complaint and, on that basis, denies them.

40. Samsung lacks knowledge or information sufficient to form a belief as to the truth

of the allegations in paragraph 40 of the Complaint and, on that basis, denies them.

41. Samsung lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 41 of the Complaint and, on that basis, denies them.

42. SEC admits that SEC has been aware of the Asserted Patents at least since March 31, 2019, but denies that Nanoco presented detailed claim charts related to each of the Asserted Patents. Samsung denies the remaining allegations in paragraph 42 of the Complaint.

43. Samsung admits that SEC and SEA have been aware of the Asserted Patents at least as of February 14, 2020 when Nanoco filed the Complaint. Samsung denies committing any acts of infringement and denies the remaining allegations in paragraph 43 of the Complaint.

COUNT I: ALLEGED INFRINGEMENT OF U.S. PATENT NO. 7,588,828

44. Samsung repeats and incorporates by reference the responses of paragraphs 1 through 43 above as though fully set forth herein.

45. Samsung admits that what is purported to be a copy of the '828 patent is attached to the Complaint as Exhibit 1. Samsung lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 45 of the Complaint and, on that basis, denies them.

46. Samsung denies the allegations in paragraph 46 of the Complaint.

47. Samsung denies the allegations in paragraph 47 of the Complaint.

48. Samsung admits that what is purported to be a list of Samsung products is attached to the Complaint as Exhibit 6. Samsung denies the remaining allegations in paragraph 48 of the Complaint.

49. Samsung admits that what is purported to be a claim chart comparing a purported Samsung QLED TV to claims of the '828 patent is attached to the Complaint as Exhibit 7. Samsung denies the remaining allegations in paragraph 49 of the Complaint.

50. With respect to Nanoco's allegation of its own efforts, Samsung lacks knowledge or

information sufficient to form a belief as to the truth of that allegation in paragraph 50 of the Complaint and, on that basis, denies it. The remaining allegations in paragraph 50 of the Complaint express legal conclusions and thus no response is required. To the extent that a response is required, Samsung denies the remaining allegations in paragraph 50 of the Complaint.

51. SEC admits that SEC has been aware of the '828 patent at least since March 31, 2019. SEA denies that SEA has been aware of the '828 patent at least since March 31, 2019. Samsung denies the remaining allegations in paragraph 51 of the Complaint.

52. Samsung admits that SEC and SEA have been aware of the '828 patent at least as of February 14, 2020 when Nanoco filed the Complaint.

53. Samsung denies the allegations in paragraph 53 of the Complaint.

54. Samsung denies the allegations in paragraph 54 of the Complaint.

COUNT II: ALLEGED INFRINGEMENT OF U.S. PATENT NO. 7,803,423

55. Samsung repeats and incorporates by reference the responses of paragraphs 1 through 54 above as though fully set forth herein.

56. Samsung admits that what is purported to be a copy of the '423 patent is attached to the Complaint as Exhibit 2. Samsung lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 56 of the Complaint and, on that basis, denies them.

57. Samsung denies the allegations in paragraph 57 of the Complaint.

58. Samsung denies the allegations in paragraph 58 of the Complaint.

59. Samsung denies the allegations in paragraph 59 of the Complaint.

60. With respect to Nanoco's allegation of its own efforts, Samsung lacks knowledge or information sufficient to form a belief as to the truth of that allegation in paragraph 60 of the Complaint and, on that basis, denies it. The remaining allegations in paragraph 60 of the Complaint express legal conclusions and thus no response is required. To the extent that a response is required,

Samsung denies the remaining allegations in paragraph 60 of the Complaint.

61. SEC admits that SEC has been aware of the '423 patent at least since March 31, 2019. SEA denies that SEA has been aware of the '423 patent at least since March 31, 2019.

Samsung denies the remaining allegations in paragraph 61 of the Complaint.

62. Samsung admits that SEC and SEA have been aware of the '423 patent at least as of February 14, 2020 when Nanoco filed the Complaint.

63. Samsung denies the allegations in paragraph 63 of the Complaint.

64. Samsung denies the allegations in paragraph 64 of the Complaint.

COUNT III: ALLEGED INFRINGEMENT OF U.S. PATENT NO. 7,867,557

65. Samsung repeats and incorporates by reference the responses of paragraphs 1 through 64 above as though fully set forth herein.

66. Samsung admits that what is purported to be a copy of the '557 patent is attached to the Complaint as Exhibit 3. Samsung lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 66 of the Complaint and, on that basis, denies them.

67. Samsung denies the allegations in paragraph 67 of the Complaint.

68. Samsung admits that what is purported to be a list of Samsung QLED TV products is attached to the Complaint as Exhibit 6. Samsung denies the remaining allegations in paragraph 68 of the Complaint.

69. Samsung admits that what is purported to be a claim chart comparing a purported Samsung QLED TV to a claim of the '557 patent is attached to the Complaint as Exhibit 9. Samsung denies the remaining allegations in paragraph 69 of the Complaint.

70. With respect to Nanoco's allegation of its own efforts, Samsung lacks knowledge or information sufficient to form a belief as to the truth of that allegation in paragraph 70 of the Complaint and, on that basis, denies it. The remaining allegations in paragraph 70 of the Complaint

express legal conclusions and thus no response is required. To the extent that a response is required, Samsung denies the remaining allegations in paragraph 70 of the Complaint.

71. SEC admits that SEC has been aware of the '557 patent at least since March 31, 2019. SEA denies that SEA has been aware of the '557 patent at least since March 31, 2019. Samsung denies the remaining allegations in paragraph 71 of the Complaint.

72. Samsung admits that SEC and SEA have been aware of the '557 patent at least as of February 14, 2020 when Nanoco filed the Complaint.

73. Samsung denies the allegations in paragraph 73 of the Complaint.

74. Samsung denies the allegations in paragraph 74 of the Complaint.

COUNT IV: ALLEGED INFRINGEMENT OF U.S. PATENT NO. 8,524,365

75. Samsung repeats and incorporates by reference the responses of paragraphs 1 through 74 above as though fully set forth herein.

76. Samsung admits that what is purported to be a copy of the '365 patent is attached to the Complaint as Exhibit 4. Samsung lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 76 of the Complaint and, on that basis, denies them.

77. Samsung denies the allegations in paragraph 77 of the Complaint.

78. Samsung admits that what is purported to be a list of Samsung QLED TV products is attached to the Complaint as Exhibit 6. Samsung denies the remaining allegations in paragraph 78 of the Complaint.

79. Samsung admits that what is purported to be a claim chart comparing a purported Samsung QLED TV to a claim of the '365 patent is attached to the Complaint as Exhibit 10. Samsung denies the remaining allegations in paragraph 79 of the Complaint.

80. SEC admits that SEC has been aware of the '365 patent at least since March 31, 2019. SEA denies that SEA has been aware of the '365 patent at least since March 31, 2019.

Samsung denies the remaining allegations in paragraph 80 of the Complaint.

81. Samsung admits that SEC and SEA have been aware of the '365 patent at least as of February 14, 2020 when Nanoco filed the Complaint.

82. Samsung denies the allegations in paragraph 82 of the Complaint.

83. Samsung denies the allegations in paragraph 83 of the Complaint.

COUNT V: ALLEGED INFRINGEMENT OF U.S. PATENT NO. 9,680,068

84. Samsung repeats and incorporates by reference the responses of paragraphs 1 through 83 above as though fully set forth herein.

85. Samsung admits that what is purported to be a copy of the '068 patent is attached to the Complaint as Exhibit 5. Samsung lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 85 of the Complaint and, on that basis, denies them.

86. Samsung denies the allegations in paragraph 86 of the Complaint.

87. Samsung admits that what is purported to be a list of Samsung QLED TV products is attached to the Complaint as Exhibit 6. Samsung denies the remaining allegations in paragraph 87 of the Complaint.

88. Samsung admits that what is purported to be a claim chart comparing a purported Samsung QLED TV to the claim of the '068 patent is attached to the Complaint as Exhibit 11. Samsung denies the remaining allegations in paragraph 88 of the Complaint.

89. With respect to Nanoco's allegation of its own efforts, Samsung lacks knowledge or information sufficient to form a belief as to the truth of that allegation in paragraph 89 of the Complaint and, on that basis, denies it. The remaining allegations in paragraph 89 of the Complaint express legal conclusions and thus no response is required. To the extent that a response is required, Samsung denies the remaining allegations in paragraph 89 of the Complaint.

90. SEC admits that SEC has been aware of the '068 patent at least since March 31,

2019. SEA denies that SEA has been aware of the '068 patent at least since March 31, 2019. Samsung denies the remaining allegations in paragraph 90 of the Complaint.

91. Samsung admits that SEC and SEA have been aware of the '068 patent at least as of February 14, 2020 when Nanoco filed the Complaint.

92. Samsung denies the allegations in paragraph 92 of the Complaint.

93. Samsung denies the allegations in paragraph 93 of the Complaint.

RESPONSE TO PRAYER FOR RELIEF

Samsung denies that Nanoco is entitled to any relief.

RESPONSE TO DEMAND FOR JURY TRIAL

This sentence contains a demand for jury trial to which no response is required.

AFFIRMATIVE AND OTHER DEFENSES

Samsung asserts the following defenses in response to the allegations of Nanoco's Complaint, undertaking the burden of proof only as to those defenses deemed affirmative defenses by law, regardless of how such defenses are denominated herein. In addition to the defenses described below, Samsung reserves all rights to allege additional defenses that become known through the course of discovery or further investigation. Samsung reserves the right to argue any defense, including as to non-infringement, invalidity, unenforceability, and/or remedy.

FIRST DEFENSE (NON-INFRINGEMENT)

Samsung does not infringe and has not infringed under any theory (including directly, jointly, contributorily, or by inducement) any valid and enforceable claim of the Asserted Patents, either literally or under the doctrine of equivalents.

SECOND DEFENSE (INVALIDITY)

The Asserted Patents are invalid because they fail to satisfy one or more of the conditions for patentability specified in Title 35 of the United States Code, 35 U.S.C. §§ 101, 102, 103, 112 and/or 116, and the rules, regulations, and laws pertaining thereto.

THIRD DEFENSE (STATUTORY REMEDY LIMITATIONS)

Nanoco's remedy for alleged infringement of the Asserted Patents, if any, is limited by Title 35 of the United States Code, including, without limitation, 35 U.S.C. §§ 286, 287, and 288.

FOURTH DEFENSE (NO EQUITABLE RELIEF)

Nanoco is not entitled to equitable relief as it has an adequate remedy at law and cannot show that it has or will suffer any immediate or irreparable harm from Samsung's actions.

FIFTH DEFENSE (PROSECUTION HISTORY ESTOPPEL)

Nanoco's claims are barred in whole or in part by prosecution history estoppel. Nanoco is estopped based on statements, representations, and admissions made during the prosecution before the United States Patent and Trademark Office of the patent families resulting in the Asserted Patents.

SIXTH DEFENSE (LACK OF STANDING)

To the extent that Nanoco lacks all substantive rights to bring suit and to exclude others from practicing the claims of any of the Asserted Patents, Nanoco's claims are barred by a lack of standing.

SEVENTH DEFENSE (NO EXCEPTIONAL CASE)

Samsung has not engaged in any conduct that would make this an exceptional case or that would entitle Nanoco to an award of attorneys' fees.

EIGHTH DEFENSE (UNENFORCEABILITY)

Nanoco's attempted enforcement of the Asserted Patents against Samsung is barred by one or more equitable doctrines of laches, estoppel, acquiescence, waiver, and unclean hands.

NINTH DEFENSE (NO WILLFULNESS NOR ENHANCEMENT)

Nanoco is precluded from recovering enhanced damages under 35 U.S.C. § 284 at least because Samsung has not willfully infringed any valid and enforceable claim of the Asserted Patents.

TENTH DEFENSE (ENSNAREMENT)

On information and belief, Nanoco's claims are barred by the doctrine of ensnarement. Nanoco is foreclosed from asserting infringement under the doctrine of equivalents to the extent that

the scope of such equivalent would ensnare prior art.

**RESERVATION OF RIGHTS TO ASSERT
ADDITIONAL DEFENSES OR COUNTERCLAIMS**

Samsung reserves the right to amend or supplement its Answer. Samsung has not knowingly or intentionally waived any applicable defenses, and it reserves the right to assert and rely upon other applicable defenses that may become available or apparent throughout the course of this action. Samsung continues to investigate this matter and reserves the right to amend or seek to amend its Answer to assert any additional defenses that come to light upon further investigation and discovery.

COUNTERCLAIMS

Pursuant to Federal Rule of Civil Procedure 13, Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively “Counterclaim-Plaintiffs”) counterclaim against Nanoco Technologies Ltd. (“Nanoco”) and, in support of thereof, allege the following:

PARTIES

1. Counterclaim-Plaintiff Samsung Electronics Co., Ltd. is a corporation organized and existing under the laws of the Republic of Korea with a principal place of business at 129 Samsung-ro, Maetan-3dong, Yeongtong-gu Suwon-si, Gyeonggi-do, 16677, Korea.
2. Counterclaim-Plaintiff Samsung Electronics America, Inc. is incorporated under the laws of New York with a principal place of business at 85 Challenger Road, Ridgefield Park, New Jersey, 07660.
3. Counterclaim-Defendant Nanoco Technologies, Ltd. has represented that it is a corporation organized and existing under the laws of the United Kingdom with a place of business at 646 Grafton Street, Manchester, M13 9NT, United Kingdom.

JURISDICTION AND VENUE

4. This Court has jurisdiction over Counterclaim-Plaintiffs’ Declaratory Judgment claims pursuant to 28 U.S.C. §§ 2201–2202 and subject matter jurisdiction over patent infringement

and validity pursuant to 28 U.S.C. §§ 1331 and 1338(a). An actual, substantial, and continuing justiciable controversy exists between Counterclaim-Plaintiffs and Nanoco based on Nanoco having filed a Complaint against Counterclaim-Plaintiffs alleging infringement of the U.S. Patent Nos. 7,588,828 (“’828 patent”), 7,803,423 (“’423 patent”), 7,867,557 (“’557 patent”), 8,524,365 (“’365 patent”), and 9,680,068 (“’068 patent”) (collectively, the “Asserted Patents”), with respect to which Counterclaim-Plaintiffs require a declaration of their rights by this Court. Specifically, the controversy concerns the invalidity and non-infringement of the Asserted Patents and the right of Nanoco to maintain suit for alleged infringement of the Asserted Patents.

5. The Court has personal jurisdiction over Nanoco, *inter alia*, at least because Nanoco has submitted to the personal jurisdiction of this Court by filing the Complaint.

6. Venue is proper in this District as to these Counterclaims pursuant to 28 U.S.C. §§ 1391(b)-(c) and 1400(b) *inter alia*, at least because Nanoco has submitted to the venue of this Court by filing its Complaint here.

FIRST COUNTERCLAIM
(DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF THE ’828 PATENT)

7. Counterclaim-Plaintiffs incorporate paragraphs 1–6 of their Counterclaims as if fully set forth herein.

8. In its complaint, Nanoco avers that Counterclaim-Plaintiffs infringe the ’828 patent.

9. Counterclaim-Plaintiffs have not directly or indirectly infringed, contributed to or induced infringement of any valid or enforceable claim of the ’828 patent and have not otherwise committed any acts in violation of 35 U.S.C. § 271.

10. Accordingly, an actual controversy exists between Counterclaim-Plaintiffs and Nanoco based on Nanoco having filed its Complaint against Counterclaim-Plaintiffs alleging infringement of the ’828 patent.

11. Counterclaim-Plaintiffs therefore seek a declaration that they have not infringed, and

do not infringe, literally or under the doctrine of equivalents, directly or indirectly, any valid and enforceable claim of the '828 patent.

12. This is an exceptional case entitling Counterclaim-Plaintiffs to an award of their attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

SECOND COUNTERCLAIM
(DECLARATORY JUDGMENT OF PATENT INVALIDITY OF THE '828 PATENT)

13. Counterclaim-Plaintiffs incorporate paragraphs 1–12 of its counterclaims as if fully set forth herein.

14. One or more of the claims of the '828 patent are invalid for failing to meet the conditions for patentability as set forth in 35 U.S.C. § 1 *et seq.*, including, but not limited to §§ 101, 102, 103, 112, and 116 and the rules, regulations, and laws pertaining thereto.

15. An actual controversy exists between Counterclaim-Plaintiffs and Nanoco based on Nanoco having filed its Complaint against Counterclaim-Plaintiffs alleging infringement of the '828 patent.

16. Counterclaim-Plaintiffs therefore seek a declaration that one or more of the claims of the '828 patent are invalid for failing to meet the conditions for patentability as set forth in 35 U.S.C. § 1 *et seq.*

17. This is an exceptional case entitling Counterclaim-Plaintiffs to an award of their attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

THIRD COUNTERCLAIM
(DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF THE '423 PATENT)

18. Counterclaim-Plaintiffs incorporate paragraphs 1–17 of their Counterclaims as if fully set forth herein.

19. In its complaint, Nanoco avers that Counterclaim-Plaintiffs infringe the '423 patent.

20. Counterclaim-Plaintiffs have not directly or indirectly infringed, contributed to or induced infringement of any valid or enforceable claim of the '423 patent and have not otherwise

committed any acts in violation of 35 U.S.C. § 271.

21. Accordingly, an actual controversy exists between Counterclaim-Plaintiffs and Nanoco based on Nanoco having filed its Complaint against Counterclaim-Plaintiffs alleging infringement of the '423 patent.

22. Counterclaim-Plaintiffs therefore seek a declaration that they have not infringed, and do not infringe, literally or under the doctrine of equivalents, directly or indirectly, any valid and enforceable claim of the '423 patent.

23. This is an exceptional case entitling Counterclaim-Plaintiffs to an award of their attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

FOURTH COUNTERCLAIM
(DECLARATORY JUDGMENT OF PATENT INVALIDITY OF THE '423 PATENT)

24. Counterclaim-Plaintiffs incorporate paragraphs 1–23 of its counterclaims as if fully set forth herein.

25. One or more of the claims of the '423 patent are invalid for failing to meet the conditions for patentability as set forth in 35 U.S.C. § 1 *et seq.*, including, but not limited to §§ 101, 102, 103, 112, and 116 and the rules, regulations, and laws pertaining thereto.

26. An actual controversy exists between Counterclaim-Plaintiffs and Nanoco based on Nanoco having filed its Complaint against Counterclaim-Plaintiffs alleging infringement of the '423 patent.

27. Counterclaim-Plaintiffs therefore seek a declaration that one or more of the claims of the '423 patent are invalid for failing to meet the conditions for patentability as set forth in 35 U.S.C. § 1 *et seq.*

28. This is an exceptional case entitling Counterclaim-Plaintiffs to an award of their attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

FIFTH COUNTERCLAIM
(DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF THE '557 PATENT)

29. Counterclaim-Plaintiffs incorporate paragraphs 1–28 of their Counterclaims as if fully set forth herein.

30. In its complaint, Nanoco avers that Counterclaim-Plaintiffs infringe the '557 patent.

31. Counterclaim-Plaintiffs have not directly or indirectly infringed, contributed to or induced infringement of any valid or enforceable claim of the '557 patent and have not otherwise committed any acts in violation of 35 U.S.C. § 271.

32. Accordingly, an actual controversy exists between Counterclaim-Plaintiffs and Nanoco based on Nanoco having filed its Complaint against Counterclaim-Plaintiffs alleging infringement of the '557 patent.

33. Counterclaim-Plaintiffs therefore seek a declaration that they have not infringed, and do not infringe, literally or under the doctrine of equivalents, directly or indirectly, any valid and enforceable claim of the '557 patent.

34. This is an exceptional case entitling Counterclaim-Plaintiffs to an award of their attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

SIXTH COUNTERCLAIM
(DECLARATORY JUDGMENT OF PATENT INVALIDITY OF THE '557 PATENT)

35. Counterclaim-Plaintiffs incorporate paragraphs 1–34 of its counterclaims as if fully set forth herein.

36. One or more of the claims of the '557 patent are invalid for failing to meet the conditions for patentability as set forth in 35 U.S.C. § 1 *et seq.*, including, but not limited to §§ 101, 102, 103, 112, and 116 and the rules, regulations, and laws pertaining thereto.

37. An actual controversy exists between Counterclaim-Plaintiffs and Nanoco based on Nanoco having filed its Complaint against Counterclaim-Plaintiffs alleging infringement of the '557 patent.

38. Counterclaim-Plaintiffs therefore seek a declaration that one or more of the claims of the '557 patent are invalid for failing to meet the conditions for patentability as set forth in 35 U.S.C. § 1 *et seq.*

39. This is an exceptional case entitling Counterclaim-Plaintiffs to an award of their attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

SEVENTH COUNTERCLAIM
(DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF THE '365 PATENT)

40. Counterclaim-Plaintiffs incorporate paragraphs 1–39 of their Counterclaims as if fully set forth herein.

41. In its complaint, Nanoco avers that Counterclaim-Plaintiffs infringe the '365 patent.

42. Counterclaim-Plaintiffs have not directly or indirectly infringed, contributed to or induced infringement of any valid or enforceable claim of the '365 patent and have not otherwise committed any acts in violation of 35 U.S.C. § 271.

43. Accordingly, an actual controversy exists between Counterclaim-Plaintiffs and Nanoco based on Nanoco having filed its Complaint against Counterclaim-Plaintiffs alleging infringement of the '365 patent.

44. Counterclaim-Plaintiffs therefore seek a declaration that they have not infringed, and do not infringe, literally or under the doctrine of equivalents, directly or indirectly, any valid and enforceable claim of the '365 patent.

45. This is an exceptional case entitling Counterclaim-Plaintiffs to an award of their attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

EIGHTH COUNTERCLAIM
(DECLARATORY JUDGMENT OF PATENT INVALIDITY OF THE '365 PATENT)

46. Counterclaim-Plaintiffs incorporate paragraphs 1–45 of its counterclaims as if fully set forth herein.

47. One or more of the claims of the '365 patent are invalid for failing to meet the

conditions for patentability as set forth in 35 U.S.C. § 1 *et seq.*, including, but not limited to §§ 101, 102, 103, 112, and 116 and the rules, regulations, and laws pertaining thereto.

48. An actual controversy exists between Counterclaim-Plaintiffs and Nanoco based on Nanoco having filed its Complaint against Counterclaim-Plaintiffs alleging infringement of the '365 patent.

49. Counterclaim-Plaintiffs therefore seek a declaration that one or more of the claims of the '365 patent are invalid for failing to meet the conditions for patentability as set forth in 35 U.S.C. § 1 *et seq.*

50. This is an exceptional case entitling Counterclaim-Plaintiffs to an award of their attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

NINTH COUNTERCLAIM
(DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF THE '068 PATENT)

51. Counterclaim-Plaintiffs incorporate paragraphs 1–50 of their Counterclaims as if fully set forth herein.

52. In its complaint, Nanoco avers that Counterclaim-Plaintiffs infringe the '068 patent.

53. Counterclaim-Plaintiffs have not directly or indirectly infringed, contributed to or induced infringement of any valid or enforceable claim of the '068 patent and have not otherwise committed any acts in violation of 35 U.S.C. § 271.

54. Accordingly, an actual controversy exists between Counterclaim-Plaintiffs and Nanoco based on Nanoco having filed its Complaint against Counterclaim-Plaintiffs alleging infringement of the '068 patent.

55. Counterclaim-Plaintiffs therefore seek a declaration that they have not infringed, and do not infringe, literally or under the doctrine of equivalents, directly or indirectly, any valid and enforceable claim of the '068 patent.

56. This is an exceptional case entitling Counterclaim-Plaintiffs to an award of their

attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

TENTH COUNTERCLAIM
(DECLARATORY JUDGMENT OF PATENT INVALIDITY OF THE '068 PATENT)

57. Counterclaim-Plaintiffs incorporate paragraphs 1–56 of its counterclaims as if fully set forth herein.

58. One or more of the claims of the '068 patent are invalid for failing to meet the conditions for patentability as set forth in 35 U.S.C. § 1 *et seq.*, including, but not limited to §§ 101, 102, 103, 112, and 116 and the rules, regulations, and laws pertaining thereto.

59. An actual controversy exists between Counterclaim-Plaintiffs and Nanoco based on Nanoco having filed its Complaint against Counterclaim-Plaintiffs alleging infringement of the '068 patent.

60. Counterclaim-Plaintiffs therefore seek a declaration that one or more of the claims of the '068 patent are invalid for failing to meet the conditions for patentability as set forth in 35 U.S.C. § 1 *et seq.*

61. This is an exceptional case entitling Counterclaim-Plaintiffs to an award of their attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

**RESERVATION OF RIGHTS TO ASSERT
ADDITIONAL DEFENSES OR COUNTERCLAIMS**

Counterclaim-Plaintiffs reserve the right to supplement their Counterclaims. Counterclaim-Plaintiffs have not knowingly or intentionally waived any counterclaims, and reserve the right to assert and rely upon other counterclaims that may become available or apparent throughout the course of this action. Counterclaim-Plaintiffs continue to investigate this matter and reserve the right to amend or seek to amend their Counterclaims to assert any counterclaims that come to light upon further investigation and discovery.

DEMAND FOR TRIAL BY JURY

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Samsung hereby demands a trial by jury on all issues to triable.

PRAYER FOR RELIEF

WHEREFORE, Samsung respectfully prays for the following relief:

- A. Judgment against Nanoco dismissing the Complaint and denying with prejudice all relief requested in Nanoco's Complaint and its prayer therein;
- B. Judgment that this case is exceptional under 35 U.S.C. § 285 and an award to Samsung of its reasonable costs and expenses of litigation, including attorneys' fees and expert witness fees; and
- C. Judgment awarding Samsung such other relief as this Court deems just and proper.

WHEREFORE, Counterclaim-Plaintiffs respectfully pray for the following relief:

- D. Declaratory judgment that Counterclaim-Plaintiffs have not infringed, directly or indirectly, any claim of the Asserted Patents; and
- E. Declaratory judgment that the claims of the Asserted Patents are invalid.

Dated: August 31, 2020

Respectfully submitted,

/s/ Melissa R. Smith

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Inc.*

CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing document was served on all counsel of record who have consented to electronic service via the Court's CM/ECF system per Local Rule CV-5(a)(3) on August 31, 2020. Any other counsel of record will be served by facsimile transmission or by first class mail.

/s/ *Melissa R. Smith*
Melissa R. Smith